

# **NCDOT Division 8 Engineer Project Solicitation and Ranking Process**

## **Prioritization 3.0**



### **Introduction**

The NCDOT Division Engineers are required by STI legislation to develop a local input methodology for all transportation projects (highway, bike and pedestrian, public transportation, aviation, rail and ferry) within their respective areas that may compete for state funding. In conjunction with our continuous, cooperative and comprehensive planning relationship with local Metropolitan Planning Organizations (MPOs) and Rural Planning Organizations (RPOs), the NCDOT Division Eight Engineer has developed the following project solicitation process and local input methodology. This document is a description of the Division Ranking Process for Transportation Division Eight and sets forth the process that it will use to rank transportation projects and award its points that contribute to the NCDOT rankings of projects.

### **Applicability**

The project solicitation process will apply to all projects submitted by the Division Eight Engineer and the local input methodology will apply to all projects (regional impact and division needs) to be ranked by the Division Eight Engineer within the geographic boundaries which consists of Chatham, Hoke, Lee, Montgomery, Moore, Randolph, Richmond and Scotland Counties (and adjacent boundaries if a given project spans more than one Division).

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### Schedule Details

#### **Project Solicitation:**

Division Eight solicited candidate projects for 30 days prior to the project submittal deadline. **The results of this process was reviewed with each of the MPOs and RPOs in the Division, appropriate NCDOT Transit Division (all modes) staff, and local aviation, rail and public transit operators prior to submitting new candidate projects.** Project suggestions received were shared and coordinated with the respective MPO and/or RPO in each Division and with appropriate NCDOT transit division staff to avoid duplication and ensure maximum number of project submittals per Division was not exceeded. The Division then submitted the selected project list using NCDOT's SPOT On!ine tool (web based system) for quantitative scoring by the project submittal deadline.

#### **Project Ranking:**

The Division Eight Engineer will evaluate the full list of new and previously evaluated projects for the Division between June and August 2014 using this methodology and assigning local input points in consultation with the MPOs and RPOs in the division, and appropriate NCDOT Transit Division (all modes) staff for submission to the Strategic Prioritization Office of Transportation (SPOT) by August 29<sup>th</sup>, 2014.

### **Public Input Process**

#### **Project Solicitation:**

The Division Eight office announced a 30 day project solicitation period to all governments, MPOs, RPOs, NCDOT staff, local airport, rail and transit operators, and interested persons in the Division's geographic boundaries using methods approved by the NCDOT Communications Office. In addition, Division Eight hosted a public hearing at a central location during the 30 day project solicitation period. Information regarding the public hearing, and specific methods for providing input (email, phone, mail, etc.); were advertised to stakeholders using methods approved by the NCDOT Communications Office. Comments received via public hearings and other methods approved by the NCDOT Communications Office were posted to the NCDOT website. **The results of the 30 day project solicitation period and the public input received were reviewed by the Division Engineer in consultation with the MPOs and RPOs in the Division, appropriate NCDOT transit division staff, and local aviation, rail and transit operators.** Through this collaboration, the Division Engineer determined the list of candidate projects to submit for technical evaluation, while avoiding duplicate project submissions and ensuring the maximum number of project submittals was not exceeded.

#### **Project Ranking:**

The Division Eight Engineer will receive the quantitative scores for the projects eligible for local input points in May of 2014. The Division Engineer will be responsible for assigning local input

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points to regional impact and division needs projects for the area (statewide mobility projects will be evaluated based solely on their technical scores). The Division Engineer will publish the local input methodology which will be used as the basis to assign preliminary points to all regional impact and division needs projects within their division and/or adjacent divisions using methods approved by the NCDOT Communications Office. The Division Eight Engineer will then announce a 30 day comment period to solicit input on this information and provide specific methods for providing input (email, phone, mail, etc.) as approved by the NCDOT Communications Office. The 30 day comment period will vary by Division, and will take place during the 90 day window (June 2-August 29, 2014) for assigning local input points. During this period, Division Eight will host a public drop-in/workshop session at a central location within the Division prior to the final assignment of local input points by August 29, 2014. Advertisement soliciting input during the 30 day comment period, and for the drop-in/workshop session, will be made to the public, and to MPOs, RPOs, NCDOT staff, local airport, rail and transit operators, and any interested persons in the Division's geographic boundaries using methods approved by the NCDOT Communications Office.

The Division Eight Engineer will review comments received in accordance with the local input methodology and in consultation with the MPOs and RPOs in the Division, appropriate NCDOT Transit Division (all modes) staff, and local aviation, rail and transit operators. **Through this evaluation and collaboration, the Division Eight Engineer will determine the final local input point assignments per eligible regional impact and division needs project within the division and/or to projects in adjacent divisions to submit for final evaluation.** All final point assignments will be published using methods approved by the NCDOT Communications Office.

### Ranking Process

#### Introduction:

The criteria outlined below will be used to create a ranking of projects in the regional impact and division needs categories that will be used by the Division Eight Engineer in determining preliminary and final local input point assignments for projects within the division and/or to projects in adjacent divisions. **The Department's quantitative scores for projects and this ranking process will act as a guide and first step in determining a preliminary rank-ordered list of projects.**

Below is the standardized list of criteria used in developing a set of ranking criteria for Division Eight. The combination of criteria selected for the regional impact and division needs ranking processes is most reflective of the needs and priorities for Division Eight. For each criterion selected, a detailed description is provided (including any pertinent information regarding data sets to be used). In developing the list of criteria for Division Eight, a minimum of four criteria were chosen from the standardized list and the weight for each criteria is such that the total

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possible points for a given project is equal to 100. The Division Engineer will publish their specific set of criteria using methods approved by the NCDOT Communications Office prior to/in conjunction with posting preliminary point assignments for projects within their division and/or to projects in adjacent divisions.

#### **Standard Criteria – Descriptions:**

- **Existing Congestion:** a measure of the volume/capacity ratio of a facility or transit service taken from SPOT data.
- **Safety Score:** a calculation based on the crash frequency and severity along sections of a particular roadway. The safety score is the score generated in the quantitative scoring process and is calculated in accordance with the SPOT calculation detailed in Appendix 1 of this document.
- **Cost Effectiveness:** a calculation of the cost per vehicle to improve a road one mile. This calculation allows different types of roads to be compared based on how much it costs to improve the road per individual vehicle.
- **Transportation Plan Consistency:** a yes or no question to determine if the proposed project is found in an existing adopted transportation plan for the area.
- **Corridor Continuity:** a measure of the project completing or continuing improvements on a defined transportation corridor.
- **Multimodal Accommodations:** a yes or no measure of the incorporation of pedestrian, bicycle or transit elements into a project.
- **Project Feasibility:** a qualitative measure of ROW, environmental justice and/or environmental problems on the project based on Transportation Planning Branch data or a completed feasibility study.
- **Shoulder Width:** a measure of the existing paved shoulder width versus the DOT design standard.
- **Lane Width:** a measure of the existing lane width versus the DOT design standard
- **Airport Safety:** a yes or no measure of the project improving safety at an airport.

#### **Regional Impact Ranking:**

Certain highway, aviation, transit, and rail projects are scored at the regional impact level, as well as any projects that cascade into the regional impact category from the statewide mobility category. The Division Eight Engineer will use the criteria and weighting below to generate a score for each project and a ranking of all projects in the regional impact category.

Below is a standard ranking of criteria eligible for use by the Division Engineer in evaluating projects in the regional impact category. The resulting scores and rank order will be used by the Division Engineer in developing preliminary and final local input point assignments for projects within their division and/or to projects in adjacent divisions. The Department's quantitative scores for projects and this ranking process will act as a guide and first step in

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determining a preliminary rank-ordered list of projects. The Division Engineer will use the preliminary rank-ordered list of projects along with local knowledge as well as information gathered through collaboration and consultation with MPOs, RPOs, local airport, rail and transit operators and input from other interested stakeholders to determine the actual assignment of qualitative points.

The Division Eight Engineer has established a set list of criteria for the Division's Ranking Methodology. For the "Regional Impact" projects, the following criteria and associated weights are proposed for the ranking of projects:

Corridor Continuity (20% weight)

Transportation Plan Consistency (20% weight)

Shoulder Width (20% weight)

Lane Width (15% weight)

Safety Score (10% weight)

Project Feasibility (10% weight)

Multimodal Accommodations (5% weight)

<b>Regional Impact Standard Ranking – Criteria and Weights</b>				
<i>(Note: Choose minimum of four criteria and determine percent weights; total points for any given project cannot exceed 100)</i>				
<b>Criteria</b>	<b>0 Points</b>	<b>20 Points</b>		
<b>Corridor Continuity 20 (% weight)</b>	Project does not complete or continue corridor improvement	Project does continue corridor improvement		
<b>Criteria</b>	<b>0 Points</b>	<b>20 Points</b>		
<b>Transportation Plan Consistency 20 (% weight)</b>	Project is not in CTP or Thoroughfare Plan	Project is in CTP or Thoroughfare Plan		
<b>Criteria</b>	<b>0 Points</b>	<b>10 Points</b>	<b>15 Points</b>	<b>20 Points</b>
<b>Shoulder Width 20 (% weight)</b>	Project does not widen shoulder	Project widens shoulder to 50% > of DOT standard	Existing shoulder meets NCDOT standard	Project widens shoulder to DOT standard
<b>Criteria</b>	<b>0 Points</b>	<b>10 Points</b>	<b>15 Points</b>	
<b>Lane Width 15 (% weight)</b>	Project does not increase lane width	Existing lane width meets NCDOT standard	Project widens lane width to DOT standard	

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Criteria	0 Points	4 Points	6 Points	10 Points
<b>Safety Score 10 (% weight)</b>	SPOT safety points less than 30	SPOT safety points between 31-50	SPOT safety points between 51-65	SPOT safety points greater than 66
Criteria	0 Points	10 Points		
<b>Project Feasibility 10 (% weight)</b>	Significant ROW, EJ or environmental concerns	Minimal ROW, EJ or environmental concerns		
Criteria	0 Points	5 Points		
<b>Multimodal Accommodations 5 (% weight)</b>	Project does not include ped/bike/transit facilities	Project does include ped/bike/transit facilities		

#### **Division Needs Ranking:**

Certain highway, aviation, bicycle and pedestrian, transit, and rail projects are scored at the division needs level, as well as any projects that cascade into the division needs category from the regional impact category. The Division Eight Engineer will use the criteria and weighting below to generate a score for each project and a ranking of all projects in the division needs category.

Below is a standard ranking of criteria eligible for use by the Division Engineer in evaluating projects in the division needs category. The resulting scores and rank order will be used by the Division Engineer in developing preliminary and final local input point assignments for projects within their division and/or to projects in adjacent divisions. The Department's quantitative scores for projects and this ranking process will act as a guide and first step in determining a preliminary rank-ordered list of projects. Each Division Engineer will use the preliminary rank-ordered list of projects along with local knowledge as well as information gathered through collaboration and consultation with MPOs, RPOs, local airport, rail and transit operators and input from other interested stakeholders to determine the actual assignment of qualitative points.

The Division Eight Engineer has established a set list of criteria for the Division's Ranking Methodology. For the "Division Needs" projects, the following criteria and associated weights are proposed for the ranking of projects:

- Shoulder Width (20% weight)
- Lane Width (20% weight)
- Safety Score (15% weight)
- Transportation Plan Consistency (15% weight)
- Existing Congestion (10% weight)

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Cost-Effectiveness (10% weight)

Multimodal Accommodations (5% weight)

Airport Safety (5% weight)

<b>Division Eight Needs Standard Ranking – Criteria and Weights</b>					
<i>(Note: Choose minimum of four criteria and determine percent weights; total points for any given project cannot exceed 100)</i>					
<b>Criteria</b>	<b>0 Points</b>	<b>10 Points</b>	<b>15 Points</b>	<b>20 Points</b>	
<b>Shoulder Width</b>  <b>20% (% weight)</b>	Project does not widen shoulder	Project widens shoulder to 50%> of DOT standard	Existing shoulder meets NCDOT standard	Project widens shoulder to DOT standard	
<b>Criteria</b>	<b>0 Points</b>	<b>10 Points</b>	<b>20 Points</b>		
<b>Lane Width</b>  <b>20% (% weight)</b>	Project does not increase lane width	Existing lane width meets NCDOT standard	Project widens lane width to DOT standard		
<b>Criteria</b>	<b>0 Points</b>	<b>2 Points</b>	<b>5 Points</b>	<b>10 Points</b>	<b>15 Points</b>
<b>Safety Score</b>  <b>15% (% weight)</b>	SPOT safety points < 30	SPOT safety points 31-50	SPOT safety points 51-65	SPOT safety points 66-80	SPOT safety points > 80
<b>Criteria</b>	<b>0 Points</b>	<b>15 Points</b>			
<b>Transportation Plan Consistency</b>  <b>15 (% weight)</b>	Project is not in adopted land use, transportation, transit or other plan	Project is in an adopted land use, transportation, transit or other plan			
<b>Criteria</b>	<b>0 Points</b>	<b>5 Points</b>	<b>10 Points</b>		
<b>Existing Congestion</b>  <b>10% weight)</b>	Volume to capacity less than 0.5 (roads and rail), existing facilities available (other modes)	Volume to capacity between 0.51 and 0.75 (roads and rail), intermittent or incomplete facilities/transit available (other modes)	Volume to capacity over 0.75 (roads and rail), no facilities/transit available (other modes)		
<b>Criteria</b>	<b>0 Points</b>	<b>2 Points</b>	<b>5 Points</b>	<b>7 Points</b>	<b>10 Points</b>
<b>Cost-Effectiveness</b>  <b>10 (% weight)</b>	Cost per daily user > \$4,000 per user per unit per mile	Cost per daily user between \$2,000-\$4,000 per user per unit per mile	Cost per daily user between \$1,500-\$1,999 per user per unit per mile	Cost per daily user between \$1,000-\$1,499 per user per unit per mile	Cost per daily user less than \$999 per user per unit per mile
<b>Criteria</b>	<b>0 Points</b>	<b>5 Points</b>			
<b>Multimodal Accommodations</b>  <b>5% (% weight)</b>	Project does not include bike/ped/transit facilities	Project includes bike/ped/transit facilities			

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Criteria	0 Points	5 Points			
<b>Airport Safety</b>	Does not improve airport safety	Does improve airport safety			
<b>5% (% weight)</b>					

#### **Division's Local Points Assignment:**

The result of the application of the ranking methodology will be a list of projects in priority order. The next step is to assign the Division's qualitative points to specific projects. Division Eight has 2000 points to allocate among Regional projects and 2000 points to allocate among Division projects.

The Division will assign its 2000 Regional points among modes and project types according to the following target allocation:

- 1800 points to Highway
- 200 points could be assigned to any mode and project type

The Division will assign its 2000 Division points among modes and project types according to the following target allocation:

- 1700 points to Highway
- 300 points could be assigned to any mode and project type

The Division will assign points within each mode and project type in order of the rankings from above. However exceptions may be made if the project costs more than the funding available in that category, or if the project will not be competitive within the specific category even with the application of qualitative points, or if the project will remain competitive in the absence of assigning qualitative points. Since funding in the Division category is limited, Statewide or Regional projects that cascade down to the Division level may not be considered for Division qualitative points if the project costs are excessive.

Distribution of the unassigned points in the Regional and Division categories will be determined by:

- The number of eligible projects within each level and mode;
- The likelihood of receiving funding through STI considering the amount of funding available within each Division and/or Region;
- Limitations set by the STI legislation; and
- Geographic and jurisdictional balance.

The specific reasoning behind the allocation of qualitative points will be documented by



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Division Eight and posted to NCDOT's website.

During the period that the draft point assignment is released for public comment, Division Eight may make further adjustments to the qualitative point assignment recommendation based on the above factors as well as:

- Coordination with MPO and RPO partners on the assignment of points; and
- Public input and support as evidenced through public comments submitted to NCDOT Division Eight via public workshop and public involvement efforts of local governments.

### **Approval of Ranking Points:**

Division Eight will release the draft Project Priority Ranking and application of qualitative points for public comments and hold a public hearing within the 90 day public comment period between June and August 2014. After review and public comment, Division Eight will finalize the application of qualitative points based upon:

- The number of eligible projects within the Division within each funding mode /project type/category;
- The likelihood of receiving funding through STI considering the amount of funding available within each Division or Region, historical funding levels for the mode, and the normalization limitations that have been adopted;
- The effect that receiving funding for a project may have on the likelihood of other projects being funded in the Division or Region considering the limitations set by the STI legislation;
- Geographic and jurisdictional balance;
- Coordination with MPO and RPO partners on the assignment of points;
- Public input and support as evidenced through public comments submitted to NCDOT, and public involvement efforts of Division Eight and local governments; and
- Division Engineer's knowledge of the transportation needs within the Division.

If the Division varies from the recommended allocation of qualitative points, we will document the rationale and will post on NCDOT's website.

STI will allow us to use our existing resources more efficiently and effectively and help us move forward with important projects that will enhance mobility and revitalize communities throughout the state. The new process encourages us to think from a statewide and regional perspective while also providing flexibility to address local needs.

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With this in mind, it is important to coordinate with all of the key stakeholders in Division Eight. The following is a list of our key stakeholders:

#### **Local Stakeholders:**

##### **Metropolitan Planning Organizations:**

Durham-Chapel Hill-Carrboro MPO  
Fayetteville Area MPO  
High Point MPO

##### **Rural Planning Organizations:**

Lumber River RPO  
Piedmont Triad RPO  
Triangle Area RPO

##### **General Aviation Airports:**

Asheboro Regional Airport (HBI)  
Laurinburg/Maxton Airport (MEB)  
Montgomery County Airport (43A)  
Moore County Airport (SOP)  
Raleigh Executive at Sanford-Lee County (TTA)  
Richmond County Airport (RCZ)  
Siler City Municipal Airport (5W8)

##### **Public Transportation:**

Chatham Transit Network  
Hoke Area Transit System (HARTS)  
County of Lee Transportation System (COLTS)  
Moore County Transportation Services (MCTS)  
Randolph County Senior Adults Assoc. Inc.  
(serves Randolph & Montgomery Counties)  
Area of Richmond Transit System Richmond Co.  
Scotland County Area Transit System (SCATS)  
Piedmont Authority for Regional Transportation  
(PART)

##### **Rail Division:**

CSX  
Amtrak  
Norfolk Southern Railroad  
Aberdeen Carolina & Western Railway  
Aberdeen and Rockfish Railroad  
Atlantic & Western Railway, LP  
Laurinburg & Southern Company, Inc.

##### **County Governments:**

Chatham County	Moore County
Hoke County	Randolph County

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#### **Municipal Governments:**

Lee County	Richmond County
Montgomery County	Scotland County
Aberdeen	Pinebluff
Archdale	Pinehurst
Asheboro	Pittsboro
Broadway	Raeford
Cameron	Ramseur
Carthage	Randleman
Dobbins Heights	Robbins
E. Laurinburg	Rockingham
Ellerbe	Sanford
Foxfire Village	Seagrove
Franklinville	Siler City
Gibson	Southern Pines
Goldston	Staley
Hamlet	Taylortown
Hoffman	Trinity
Laurinburg	Vass
Liberty	Wagram
Maxton	Whispering Pines
Norman	

#### **NCDOT Divisions:**

Transportation Divisions 5, 6, 7, 9, 10  
Bicycle and Pedestrian Division  
Public Transportation Division  
Rail Division  
Aviation Division  
Transportation Planning Branch